

REMARKS

This is in response to the Office Action mailed on April 6, 2005. In the Office Action, the Examiner indicated that Claims 1-22 are pending, Claims 1-9, 20-22 are withdrawn from consideration and Claims 10-19 are rejected. With this Amendment, Claims 10, 14, 15, 19 are amended, and Claims 10-19 are presented for reconsideration and allowance.

In the Office Action, line 4a of the PTOL-326 Form refers to Claims "20-22." Applicant, however, has no record of claims numbered 20-22.

Claim Rejections - 35 USC 103

Claims 10-12 and 15-17 were rejected under 35 USC 103(a) over Dessert et al (6,257,071) in view of Cornil et al (6,199,434).

Claim 10 recites "the unitary flowtube being formed as a unitary casting that is free of seams". The Dessert et al reference does not teach a flowtube free of seams. The flowtube in Dessert et al. shows a multipart flowtube that includes both a metal casting part 12 and a fluorocarbon layer part 18,22. From FIG. 1 of Dessert et al, it can be seen that there is a seam between the metal casting part and the fluorocarbon part of the flowtube. The Cornil et al reference also does not teach a flowtube free of seams. In FIG. 1 of Cornil et al. there is a seam with an O-ring 405 between flanges 205, 403 that is part of the flowmeter of Cornil et al. Reconsideration and allowance of Claims 10-12 is therefore requested.

The Examiner relied on Cornil et al to show expanders. Cornil et al. teaches that the "regulator-expander" is upstream from a flowmeter, not a part of a flowmeter. A person of ordinary skill in the art would recognize that the "expander" portion of the "regulator-expander" of Cornil et al. is a gas expander and is not a pipe diameter expander as presently claimed. The

expanders disclosed in the present application expand piping from one diameter to another diameter as illustrated in FIGS 4A,B, 5A,B, 6A, B of the present application. The "expander" mentioned in the Cornil et al. reference, however, is a device that includes a valve and a pressure sensing diaphragm operating the valve to control gas expansion. Gas expanders of the type taught in Cornil et al. are shown for example at 110, 160 of FIG. 2 in US Patent 5,752,544, and bear no resemblance in function or form to the diameter expanders presently claimed. With this amendment, Claims 10, 14, 15, 19 are amended to recite diameter expanders to better distinguish the diameter expanders of the present invention from gas expanders shown in Cornil et al. The feature of a diameter expander is neither taught nor suggested by Dessert et al or Cornil et al references, taken singly or in combination.

Accordingly, applicant requests that the rejection based on Dessert et al in view of Cornil et al be withdrawn, and that Claims 10-12, 15-17, as presently amended, be allowed.

Claims 13 and 18 were rejected under 35 USC 103(a) over Dessert et al in view of Cornil et al as applied to Claim 10 above and further in view of Khalifa (4,841,781). As argued above, Claims 13 and 18, as presently amended, include limitations to "diameter expanders," a feature that is not taught or suggested by Dessert et al or Cornil et al. Khalifa also does not teach or suggest diameter expanders as presently claimed in the base claims 10, 15. Claims 13, 18 include a limitation to a flow conditioner with vanes that have streamlined edges. This limitation, taken in combination with the features of the base claims defines a new combination that is not taught or suggested by the prior art and is believed to be patentable. Reconsideration and allowance of Claims 13, 18 is therefore requested.

Claims 14 and 19 were rejected under 35 USC 103(a) over Dessert et al in view of Cornil et al as applied to Claim 15 above and further in view of Matt et al (6,408,700).

As argued above, Claims 14 and 19, as presently amended, include limitations to "diameter expanders," a feature that is not taught or suggested by Dessert et al or Cornil et al. Matt et al. also does not teach or suggest diameter expanders.

The Examiner cites Matt et al. as showing a microprocessor with a calibration factor. Matt et al., however, does not teach or suggest that the calibration is "stored in the vortex flowmeter" as presently claimed. In Matt et al., the circuitry shown in FIG. 2 (which includes the calibration factor) is a circuit that is connectable to a Coriolis flowmeter, but is not taught to be included in the flowmeter itself as presently claimed in Claims 14 and 19 and is also not taught to be stored. Claims 14, 19, as presently amended, are thus believed to be patentable. Reconsideration and allowance of Claims 14, 19 is requested.

Claims 10-19, as presently amended, are believed to be patentable over the art cited. None of the art cited by the Examiner teaches the limitation of the diameter expanders coupling between flowtube flanges and a bore which differ by size number.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By:



David C. Bohn, Reg. No. 32,015  
Suite 1400 - International Centre

-10-

900 Second Avenue South  
Minneapolis, Minnesota 55402-3319  
Phone: (612) 334-3222 Fax: (612) 334-3312